UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:	)	
	)	
Marathon Ashland Petroleum LLC Detroit, Michigan	)	**FINDING OF VIOLATION**
	)	
	)	**EPA-5-99-MI-32**
	)	
Proceedings Pursuant to the Clean Air Act, 42 U.S.C. §§ 7401 et seq.	)	
	)	

Finding of Violation

The United States Environmental Protection Agency (U.S. EPA) hereby notifies the State of Michigan and Marathon Ashland Petroleum LLC (MAP) that U.S. EPA finds that MAP, at its refinery located at 1300 South Fort Street, Detroit, Michigan, is in violation of the Clean Air Act (Act), 42 U.S.C. §§ 7401 et seq. MAP is in violation of Section 112 of the Act, 42 U.S.C. § 7412, Section 111 of the Act, 42 U.S.C. § 7411(e), the regulations setting forth National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Benzene Waste Operations, Subpart FF, the regulations setting forth Standards of Performance (NSPS) for Storage Vessels for Petroleum Liquids Subpart K and Kb; Equipment Leaks of VOC at Petroleum Refineries Subpart GGG; Equipment Leaks of VOC Subpart VV; VOC Emissions from Petroleum Refinery Wastewater Systems Subpart QQQ; and, the General Provisions Subpart A, at 40 C.F.R. Part 61 and Part 60 as follows:

Regulatory Authority: NESHAP Subpart FF

1. On January 7, 1993, in accordance with Section 112(d) of the Act, U.S. EPA promulgated the National Emission Standards for Benzene Waste Operations, Subpart FF, 40 C.F.R. §§ 61.340-60.358. 55 Fed. Reg. 8346, March 7, 1990 as amended at 55 Fed. Reg. 37231, September 10, 1990; 58 Fed. Reg. 3095, January 7, 1993.

2. Subpart FF applies to the owners or operators of chemical manufacturing plants, coke by-product recovery plants, and petroleum refineries.

3. The NESHAPs, at 40 C.F.R. § 61.342(a), requires the total annual benzene quantity from the facility waste to be the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10 percent.

4. The NESHAPs, at 40 C.F.R. § 61.342(b), requires a facility at which the total annual benzene (TAB) quantity from the facility waste is equal to or greater than 10 Megagrams per year (Mg/yr) as determined in 40 C.F.R. § 61.342(a) to be in compliance with the requirements of paragraph (c) through (h) no later than 90 days following the effective date.

5. The NESHAPs, at 40 C.F.R. § 61.342(c), requires a facility at which the TAB quantity from the facility waste is equal to or greater than 10 Mg/yr as determined at 40 C.F.R. § 61.342 (a) to manage and treat the facility waste as specified in 40 C.F.R. § 61.342(c)(1) through § 61.342(c)(3).

6. The NESHAPs, at 40 C.F.R. § 61.343(a)(1)(i), requires fixed roofs to meet the requirements specified in 40 C.F.R. § 61.343(a)(1)(i)(A) through § 61.343(a)(1)(i)(C).

7. The NESHAPs, at 40 C.F.R. § 61.355(a), requires an owner or operator to determine the TAB quantity from the facility waste by the procedure specified in 40 C.F.R. § 61.355(a)(1) through § 61.355(a)(6).

8. The NESHAPs, at 40 C.F.R. § 61.357(a), requires a facility to submit to the Administrator within 90 days after January 7, 1993, or by the initial startup for a new source, a report that summarizes the regulatory status of each stream subject to 40 C.F.R. § 61.342 and determined by the procedures specified in 40 C.F.R. § 61.355(c) to contain benzene.

9. The NESHAPs, at 40 C.F.R. § 61.357(d), requires facilities with a TAB greater than of equal to 10Mg/yr to certify that the required control equipment has been installed and submit quarterly and annual reports regarding the inspection and performance of this equipment.

Regulatory Authority: NSPS Subpart K

10. On July 25, 1997, in accordance with Section 111 (b) of the Act, U.S. EPA promulgated the NSPS Storage Vessels for Petroleum Liquids. 42 Fed. Reg. 37937, July 25, 1977, as amended at 45 Fed. Reg. 23370, April 4, 1980.

11. Subpart K applies to storage vessels for petroleum liquids for which construction, reconstruction, or modification commenced after June 11, 1973, and prior to May 19, 1978.

12. The NSPS, at 40 C.F.R. § 60.110, applies to each storage vessel for petroleum liquids which has a storage capacity greater than 40,000 gallons but not exceeding 65,000 gallons and commences construction or modification after March 8, 1974 and prior to May 19, 1978.

13. The NSPS, at 40 C.F.R. § 60.112(a)(1), requires each storage vessel equal or greater than 1.5 psia but not greater than 11.1 psia to be equipped with a floating roof, a vapor recovery system, or their equivalents.

14. The NSPS, at 40 C.F.R. § 60.113(a), requires the owner or operator to maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.

Regulatory Authority: NSPS Subpart Kb

15. On April 8, 1987, in accordance with Section 111(b) of the Act, U.S EPA promulgated NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which construction, reconstruction, or modification commenced after July 23, 1984, 40 C.F.R. Part 60, § 60.110b-60.117b. 52 Fed. Reg. 11429, April 8, 1987, as amended at 54 Fed. Reg. 32973, August 11, 1989.

16. Subpart Kb applies to each storage vessel with a capacity greater than or equal to 40 cubic meters that is used to store volatile organic liquids (VOL) for which construction, reconstruction or modification is commenced after July 23, 1984.

17. The NSPS, at 40 C.F.R. § 60.113b(a)(2), requires vessels equipped with a liquid-mounted or mechanical shoe primary seal, to be visually inspected at least once every 12 months after initial fill.

Regulatory Authority: NSPS Subpart GGG

18. On May 30, 1994, in accordance with Section 111(b) of the Act, U.S. EPA promulgated NSPS for Equipment Leaks of VOC at Petroleum Refineries, 40 C.F.R. §§ 60.590-60.593. 49 Fed. Reg. 22606.

19. Subpart GGG applies to all equipment, including valves, pumps, relief devices, sampling connection systems, open-ended valves or lines, flanges and other connectors in VOC service, within a process unit on which construction or modification was commenced after January 4, 1983.

20. The NSPS, at 40 C.F.R. § 60.592(a), requires the owner or operator to comply with the requirements of 40 C.F.R. §§ 60.482-1 to 60.482-10 as soon as practicable, but no later than 180 days after initial startup.

Regulatory Authority: NSPS Subpart VV

21. On October 18, 1983, in accordance with Section 111(b) of the Act, U.S. EPA promulgated NSPS for Equipment Leaks of VOC, Subpart VV. 48 Fed. Reg. 48335, October 18, 1983, as amended at 49 Fed. Reg. 22607, May 30, 1984.

22. Subpart VV applies to affected facilities in the synthetic organic chemicals manufacturing industry.

23. The NSPS, at 40 C.F.R. § 60.482-7(a), requires each valve to be monitored monthly to detect leaks by the methods specified in 40 C.F.R. § 60.485(b) and to comply with paragraphs (b) through (e), except as provided in paragraph (f) and (h), 40 C.F.R. § 60.483-1,2 and 40 C.F.R. § 60.482-1(c).

24. The NSPS, at 40 C.F.R. § 60.483-1(a)(1), requires an owner or operator to notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in 40 C.F.R. § 60.487(b).

25. The NSPS, at 40 C.F.R. § 60.483-2(b)(6), requires an owner or operator to keep a record of the percent of valves found leaking during each leak detection period.

26. The NSPS, at 40 C.F.R. § 60.482-6(a)(2), requires all open ends to be sealed with a cap, blind flange, plug or second

valve at all times except during operations requiring process fluid flow through the open-ended valve or line.

27. The NSPS, at 40 C.F.R. § 60.482-7(d)(1), requires that when a leak is detected, it must be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 C.F.R. § 60.482-9.

28. The NSPS, at 40 C.F.R. § 60.482-7(d)(2), requires a first attempt at repair to be made no later than 5 calendar days after each leak is detected.

29. The NSPS, at 40 C.F.R. § 60.486(f)(2), requires a list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

30. The NSPS, at 40 C.F.R. § 60.487(d), requires an owner or operator electing to comply with the provisions of 40 C.F.R. § 60.483-1 and 40 C.F.R. § 60.483-2 to notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

Regulatory Authority: NSPS Subpart QQQ

31. On November 23, 1988, in accordance with Section 111(b) of the Act, U.S. EPA promulgated NSPS for VOC Emissions from Wastewater, Subpart QQQ. 53 Fed. Reg. 47623.

32. Subpart QQQ applies to affected facilities (including individual drain systems, oil-water separators, and aggregate facilities) located in petroleum refineries for which construction, modification, or reconstruction is commenced after May 4, 1987.

33. The NSPS, at 40 C.F.R. § 60.692-2(b)(1), requires junction boxes to be equipped with a cover and may have an open vent pipe. The pipe shall be at least 90 cm (3 feet) in length and not exceed 10.2 cm (4 feet) in diameter.

34. The NSPS, at 40 C.F.R. § 60.692-3(a), requires each oil-water separator tank, slop oil tank, storage vessel, or other auxiliary equipment subject to the requirements of this subpart to be equipped and operated with a fixed roof, which meets § 60.692-3(a) through (f); except as provided in paragraph (d) of this section or in § 60.693-2.

Regulatory Authority: NESHAP Subpart A

35. On September 25, 1979, in accordance with Section 112(d) of the Act, U.S. EPA promulgated NESHAP General Provisions, Subpart A. 44 Fed. Reg. 55174, September 25, 1979, as amended at 50 Fed. Reg. 46290, November 7, 1985; 59 Fed. Reg. 12429, March 16, 1994.

36. The NESHAPs, at 40 C.F.R. § 61.12(c), requires the owner or operator of each stationary source to maintain and operate the source, including associated equipment for air pollution control, in a manner consistent with good air pollution control practice for minimizing emissions.

Factual Background

37. MAP owns and operates a petroleum refinery located at 1300 South Fort Street, Detroit, Michigan.

38. Waste streams generated from operations at MAP are regulated under 40 C.F.R. Part 61, Subpart FF.

39. Since 1993, MAP's reported number of benzene contaminated waste streams has increased by 18 streams. These waste streams are either at least 10% water, or are mixed with streams resulting in a waste stream that is at least 10% water.

40. Waste streams that were not in MAP's 1993, 1994 and 1995 Benzene TAB reports are, but may not be limited to the following: water/hydrocarbon draws from tank 23; sample wastes; the alky flare knock-out pot; the alky caustic wash vessel; sludges; and other wastes shipped off-site.

41. Based on information from U.S EPA's National Enforcement Investigations Center (NEIC) inspection, U.S. EPA has determined that MAP's TAB value is greater than 10 Mg/yr.

42. MAP directs oily wastewater to open-roof surge Tanks 32 and 33 when the American Petroleum Institute oil/water separator (API) capacity of 2,000 gallon per minute (GPM) is exceeded or when the final discharge might exceed permit limits. NEIC has estimated 2.19 Mg/yr of benzene are released from Tanks 32 and 33.

43. During the NEIC inspection , MAP's Tanks 32 and 33 were at least half full of oily wastewater and contained an oil

layer that was being removed by vacuum trucks from the water surface of the tanks. The oil substance was then pumped directly to the API skim pit for further processing.

44. MAP owns and operates the following storage vessels: Tank 33 was installed in 1976 with a capacity of 1,400,000 gallons and is identified by MAP to store wastewater. Tank 35 was installed in 1989 with a capacity of 157,374 gallons and is identified by MAP to store methanol. Tank 508 was installed in 1972 with a capacity of 345,996 gallons and is identified by MAP to store crude slop oil. Tank 40 was installed in 1948 with a capacity of 879,228 gallons and is identified by MAP to store blend grade gasoline and regular lead free gasoline.

45. Fugitive volatile organic compound (VOC) emissions at MAP are regulated by 40 C.F.R. Subpart GGG and Subpart VV.

46. The leak definition for NSPS valves and pumps is 10,000 parts per million by volume (ppmv).

47. MAP's leak detection and repair program (LDAR) includes 17 process units and includes approximately 12,900 components.

48. The MAP LDAR program is conducted by MAP personnel.

49. Since December 1997, MAP has added over 4,000 valves to the monitoring program.

50. MAP does not have a monitoring schedule for the valves included on the difficult-to-monitor list to ensure monitoring is conducted on an annual basis and MAP does not have a record of percentage of valves found leaking during each leak detection period.

51. During the NEIC's LDAR inspection, inspectors found the following: (1) MAP did not seal 10 lines containing VOC with a second valve, blind flange, plug or cap, as required; (2) had 36 leaking components that MAP did not repair within 15 days or placed on the shutdown list after being identified; and (3) had 2 leaking valves which had no documentation indicating repair attempts and/or repairs within the required time frame.

52. MAP has built since the effective date of Subpart QQQ (May 4, 1987), the MTBE, Tank 129, new tank water draw sewer line, unifiner, Amine/SRU/TGTU, SR platformer, and kerosene hydrotreater. These new projects/process units have

increased the number of drains and/or individual drain systems and therefore subject to 40 C.F.R. Part 60, Subpart QQQ.

Violations: Benzene NESHAP, Subpart FF

53. MAP did not include all waste streams in its initial and annual benzene calculations. This is a violation of 40 C.F.R. § 61.342(a) and 40 C.F.R. § 61.355(a).

54. Based on an inspection at MAP in October 1998 by NEIC, EPA has determined that MAP's TAB is greater than 10 Mg/yr. See Attachment B for a summary of NEIC's TAB estimate calculation. MAP is not complying with the treatment and control requirements described generally in 40 C.F.R. § 61.342(c) through (h). This is a violation of 40 C.F.R. § 61.342(b) and (c) through (h).

55. MAP diverts wastewater flow to open-roof surge Tanks 32 and 33. This occurs when (1) waste water treatment plant capacity is exceeded or (2) discharge permit limits will not be met. This is a violation of 40 C.F.R. § 61.343(a)(1)(i) and 40 C.F.R. § 61.12(c).

56. Since 1993, MAP has not submitted complete initial and annual reports which identify all waste sources of benzene. This is a violation of 40 C.F.R. § 61.357(a).

57. MAP has not certified that the required control equipment has been installed and has not submit quarterly and annual reports regarding the inspection and performance of this equipment. This is a violation of 40 C.F.R. § 61.357(d).

Violations: Storage Vessels Subparts K and Kb

58. During the NEIC inspection, it was learned that MAP uses Tank 33 to direct oily wastewater when the API's capacity of 2,000 GPM is exceeded or when the final discharge might exceed permit limits. Because Tank 33 has no roof, benzene present in the stored oily process wastewater is emitted to the atmosphere through volatilization. These are violations of 40 C.F.R. § 60.110, 40 C.F.R. § 60.112(a)(1), and 40 C.F.R. § 60.113(a).

59. During the NEIC inspection, MAP could not produce records showing that the internal floating roofs and roof seals had

been inspected for tanks 35 and 508 in calendar year 1996. MAP could not produce a record that the roof seals had been inspected for tank 40 in calendar year 1996. These are violations of 40 C.F.R. § 60.113b(a)(2).

Violations: VOC Emissions For Equipment, Subpart VV and GGG

60. MAP has not monitored all the valves subject to the monitoring requirements in violation of 40 C.F.R. § 60.482-7(a) and 40 C.F.R. § 60.590.

61. MAP does not have a monitoring schedule for the valves included on the difficult-to-monitor list to ensure monitoring is conducted on an annual basis. These are violations of 40 C.F.R. §60.486(f)(2) and 40 C.F.R. § 60.590.

62. MAP does not have a record of percentage of valves found leaking during each leak detection period. These are violations of 40 C.F.R. § 60.483-2(b)(6) and 40 C.F.R. § 60.590.

63. During the NEIC LDAR inspection, inspectors found that MAP did not seal 10 lines containing VOCs with a second valve, blind flange, plug or cap, as required. These are violations of 40 C.F.R. § 60.482-6(a)(2) and 40 C.F.R. § 60.590.

64. Based on MAP quarterly VOC monitoring records for 1996 and 1997, MAP had 36 leaking components that MAP did not repair within 15 days or place[d] on the shutdown list after being identified. These are violations of 40 C.F.R. § 60.482-7(d)(1) and 40 C.F.R. § 60.590.

65. Based on MAP quarterly VOC monitoring records for 1996, MAP had 2 leaking valves which had no documentation indicating repair attempts and/or repairs within the required time frame. These are violations of 40 C.F.R. § 60.482-7(d)(1) and § 60.482-7(d)(2).

66. MAP did not submit a notification to indicate the selection of an alternative monitoring standard. These are violations of 40 C.F.R. § 60.483-1(a)(1), 40 C.F.R. § 60.487(d) and 40 C.F.R. § 60.590.

Violations: VOC Emissions from Wastewater, Subpart QQQ

67. During the NEIC inspection, inspectors found four (4) junction box covers that did not meet control requirements. Manholes 02-0-00006, 02-0-0001, the manhole upstream of 02-0-0001, and the manhole for tank 113 diked area have openings to the atmosphere. These are violations of 40 C.F.R. § 60.692-2(b)(1).

68. During the NEIC inspection, it was learned that MAP uses Tank 33 to direct oily wastewater when the API's capacity of 2,000 GPM is exceeded or when the final discharge might exceed permit limits. Because Tank 33 has no roof, benzene present in the stored oily process wastewater is emitted to the atmosphere through volatilization. This is a violation of 40 C.F.R. § 60.692-3(a).

7/14/99
Date

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